

## PATENT ABSTRACTS OF JAPAN

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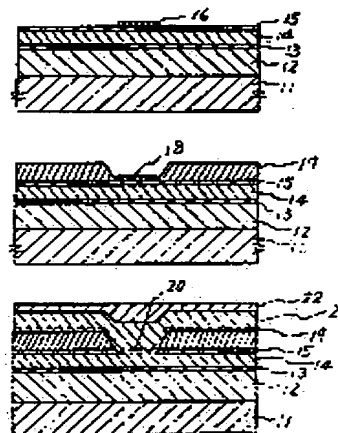
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## (54) MANUFACTURE OF SEMICONDUCTOR LASER

## (57)Abstract:

**PURPOSE:** To prevent a boundary transforming layer from generating by forming a semiconductor layer except an insulating mask pattern provided on the semiconductor layer, removing a mask pattern and further forming a semiconductor layer.

**CONSTITUTION:** Layers 12~15 are sequentially grown on a substrate 11. Then, after an SiO<sub>2</sub> film is formed on the entire surface by a chemical depositing method, a striped SiO<sub>2</sub> film 16 is formed by a photoetching method. A selectively epitaxial current narrowing layer 17 is formed by the thermal decomposing reaction of special gas. At this time, a stripe groove 18 is formed on the film 16. Then, the film 16 is removed, and the surface 19 of the layer 17 and the layer 15 of the groove 18 portion are removed. Then, a clad layer 21 and a cap layer 22 are continuously epitaxially grown. Since the selectively growing method using an SiO<sub>2</sub> mask is used to form the layer 17 in this manner, it can prevent a boundary transforming layer from generating.



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